Work Order ID 73137

Friday, August 26, 2011 6:49:07 AM

KH ASAP

Item ID: D206-642-251 **Accept** **Setup Start**

Revision ID: **Stop**

Item Name: Replacement Skidtube

Start Date: 8/26/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 9/9/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Approvals: **Process Plan:** MLF **Date:** 11-08-29 **Tooling:** **Date:** **Run Start**

QC: **Date:** **SPC (Y/N):** **Date:** **Stop**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Draw Nbr	Revision Nbr
D3804	A
IIN-D206-642	N

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	
100		0.00	
DC	DOCUMENT CONTROL	0.00	N/A CK 12/01/02
Document Control	**Memo** Photocopy bluefile & type labels per PPP D206-642-251 CHG001		

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ______________ PAR #: ______ Fault Category: ______________ NCR: Yes No DQA: _____ Date: _________

Resolution: ______________ Disposition: ______________ QA: N/C Closed: _________ Date: _________

NCR:	WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Work Order ID 73137

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Revision ID:

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Reference:

Cust Item ID:

Customer:

Setup **Start** / **Stop**

Run **Start** / **Stop**

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							
Skidtubes	Skidtubes								
Skidtubes	Memo	0.00				11-9-16			

1-Deburr Fwd edge of tube

2- Remove ridge on inside of Fwd edge of tube as per Dwg D3804

3-Weld Fwd Cap as per Dwg D3804. Use aluminum rod. Grind D2647 to fit as required.
Pick:
Qty □Part Number□ Description□Batch
A/R□□ Aluminum Rod□ M112360 BE 11/09/19

4-Grind weld flush to cap on top surface only. BE 11/09/19

5-Cut Aft end as per dwg D3804 from front of tube and Deburr ✓

6-Remove inner indexing ridge on Aft end of skidtube as per Dwg D3804 ✓

7-Open holes for Aft end cap as per Dwg D3804 with #30 Drill Bit using DT8025. ✓

8-Drill pilot holes using Dt 8167. ✓

9-Locate DT8732 from inner Aft saddle hole & 3rd crossbolt hole. Insert D3286-1 doubler using DT8732 & D206-642-241-T1, then locating doubler off of 3/16" holes, cleco DT8732 & doubler leaving DT8732 for added support. ✓

10- Drill D3286-1 doubler rivet holes in tube using # 40 drill, spot drilling doubler at the same time. ✓

(Steps 5–10 bracketed: 11/11/30)

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Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector

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Reference:

Run **Start** **Stop**

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
	11-Working from the center out, drill # 30 holes into D3286-1 doubler. Cleco each hole as it is being drilled. Verify angle of holes to accommodate rivet heads. ✓								
	12-Remove 3/16" cleco's only and open GHW holes to Ø0.500" as per Dwg D3804 ✓								
	13-Remove D3286-1 doubers, identify orientation, deburr, then attach them to the workorder ✓								
	14-Remove indexing edge using DT8741 as per Dwg D3804 ✓								
	15-C'sink GHW rivet holes as per Dwg D3804 ✓								
120 QC Quality Control	QC6- Inspect dimensions to drawing	0.00							
	Memo	0.00							

DL. 11/11/30

11 12 01 (1)

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ________________ PAR #: ________ Fault Category: ________________ NCR: Yes No DQA: _____ Date: __________

Resolution: ________________ Disposition: ________________ QA: N/C Closed: __________ Date: __________

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Stop

QC: ____________________ **Date:** ________ **SPC (Y/N):** ________ **Date:** ________

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
Skidtubes Skidtubes	Skidtubes								DL 11/12/01
	Memo 1-Open crossbolt holes to Ø0.3125" 2- Open Aft cap hole #6. ****no wearplate holes for this skidtube**** 3-Deburr tube and blow out chips from inside the tube	0.00							
140 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1	0.00	DL 11/12/01						
	Memo	0.00							
150 QC Quality Control	QC3- Inspect Part Finish	0.00	DP			11-12-2			
	Memo	0.00							

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ________________ PAR #: ______ Fault Category: ______________ NCR: Yes No DQA: _____ Date: ________

Resolution: ________________ Disposition: ________________ QA: N/C Closed: ________ Date: ________

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Approvals: **Process Plan:** ________ **Date:** ________ **Tooling:** ________ **Date:** ________

QC: ________ **Date:** ________ **SPC (Y/N):** ________ **Date:** ________ **Stop**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160		0.00							
Skidtubes	Skidtubes								
Skidtubes	**Memo** 1-Open holes to finished size as per Dwg D3804, (without cutting fluid) 2-C'sink crossbolt spacer holes as per Dwg D3804(without cutting fluid) 3-Deburr and blow out all chips from inside the tube	0.00							JDP 11-12-2
170	QC6- Inspect dimensions to drawing	0.00				1	0		BE 11-12-02
QC Quality Control	**Memo**	0.00							

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

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Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______ **Stop**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 Skidtubes Skidtubes	Skidtubes	0.00							
	Memo 1-Locate, install and rivet doublers as per Dwg D3804. Micro-shave rivets as required 2-Bond D2654-3 web in place as per QSI 015. Ensure holes line up.Allow 12 Hrs. cure time before cutting Start Date: 11-12-3 Time: 1145AM Finish Date: 11-12-5 Time: 12:45 Pick: Qty Part Number Description Batch A/R Sikaflex-291 M 11939 Sikaflex expire date: 12-8-13	0.00						11-12-3	
190 QC Quality Control	QC5- Inspect part completeness to step on W/O	0.00				1	0		8.E 11-12-05
	Memo	0.00							

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ___________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200		0.00							
Skidtubes	Skidtubes	0.00							
Skidtubes									

Memo

1-remove alodine from around hole and prepare for welding

2-Prep per QSI 005 and Insert D2649 crossbolt spacers. Weld as per QSI 004 and Dwg D3804. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod. BE 11-12-05
Pick:
Qty□Part Number□Description□Batch
A/R□□Aluminum Rod□ M117889

3-Grind welds flush as per Dwg D3804. BE 11-12-05

4-Using DT8733, insert (2) D3286-3 spacers as per QSI 004 and Dwg D3804. Remember to back drill each hole to Ø0.402" before welding other side. Use SS rod as required.
A/R□SS Rod□ NONE BE 11-12-05

5-Counterbore 5/16" x 0.750" deep except 7th hole from Aft end as per Dwg D3804. Deburr DP 11-12-6

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Part No: ________________ PAR #: _______ Fault Category: ________________ NCR: Yes No DQA: _____ Date: _________

Resolution: ________________ Disposition: ________________ QA: N/C Closed: _________ Date: _________

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Run Start

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210		0.00							
HandFinish	HandFinishing								
Hand Finishing	**Memo**	0.00	DP 11-12-6						
	Install D2680-041 Nut Plate as per Dwg D3804								
220	QC9- Inspect visual per QSI004- Fusion Welds	0.00	[signature] 11/12 06						
QC	**Memo**	0.00							
Quality Control									
	Q10 →	[signature] 11/12/06							
230	QC5- Inspect part completeness to step on W/O	0.00							
QC	**Memo**	0.00	[signature] 11/12/06						
Quality Control									

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

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Approvals: **Process Plan:** ____ **Date:** ____ **Tooling:** ____ **Date:** ____

QC: ____ **Date:** ____ **SPC (Y/N):** ____ **Date:** ____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	Pressure Wash per QSI005 4.3	0.00							
HandFinish Hand Finishing	**Memo**	0.00				1X	Ø		M- 11/12/06
250	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
Powdercoat Powder Coating M118439	**Memo** START TIME: 1:30 OVEN TEMPERATURE: 320°F FINISH TIME: 2:00	0.00				1X	Ø		M- 11/12/06
260	QC3- Inspect Part Finish	0.00							
QC Quality Control	**Memo**	0.00				1wH	Ø		11/12/18

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ PAR #: ______ Fault Category: ____________ NCR: Yes No DQA: _____ Date: ________

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Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270 HandFinish Hand Finishing	HandFinishing	0.00 0.00				1 LH	∅	JM	4/12/14
280 HandFinish Hand Finishing	HandFinishing	0.00 0.00				1 LH	∅	JM	4/12/14

Sequence 270 — **Memo**

✓ 1-Install D2651-3 O-Rings on D2651-1 plugs with Petroleum Jelly and install plugs as per Dwg D3804. Clean excess adhesive.

Sequence 280 — **Memo**

✓ 1-Install D2646 Aft Cap and seal with Sikaflex. Clean excess adhesive
A/R Sikaflex-291 M1194613
Sikaflex expire date: 1/7/15

2- Install wearplate as per dwg

✓ 2-Wing Walk as per Dwg D3804 and QSI 005 4.4
Batch: M119041

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Part No: ______________ **PAR #:** _______ **Fault Category:** ______________ **NCR:** Yes No **DQA:** _____ **Date:** _________

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
290 QC Quality Control	QC3- Inspect Part Finish **Memo**	0.00 0.00	Sulizlly						
300 QC Quality Control	QC5- Inspect part completeness to step on W/O **Memo**	0.00 0.00	Sulizlly						
310 Packaging Packaging	Packaging **Memo** Identify and pack for shipping as per PPP D206-642-251 Location:__________ PPP Rev:__________	0.00 0.00	PPP 5725			11/12/29			

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
320	QC21- Final Inspection - Work Order Release	0.00				CK 12\01\02			
QC	Memo	0.00							
Quality Control									

M.C.J 11\12\29

(1)

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

Picklist Print

Friday, August 26, 2011 6:49:03 AM

Work Order ID: 73137

Parent Item: D206-642-251

Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011 **Required Date:** 9/9/2011

Start Qty: 1.00 **Required Qty:** 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2620 Skidtube, 206 Skidtube		Manufactured	No			110	Each	18.0000	1	1			

Location	Loc Qty	Loc Code	Qty
LG	18		
68136	1		
71616	5		
71617	12		

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3286-1 Doubler		Manufactured	No			110	Each	32.0000	2	2			

11-9-16

DL 11/11/30.

Location	Loc Qty	Loc Code	Qty
LG002 74872	32		2
52844	11		
64563	21		

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2647 Cap		Manufactured	No			110	Each	44.0000	1	1			

DE 11/09/9

Location	Loc Qty	Loc Code	Qty
LG002	44		
55352	14		1
71171	30		

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: ____________ **PAR #:** ________ **Fault Category:** ____________ **NCR:** Yes No **DQA:** ______ **Date:** __________

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			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

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Picklist Print

Friday, August 26, 2011 6:49:03 AM

Work Order ID: 73137

Parent Item: D206-642-251

Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011 **Required Date:** 9/9/2011

Start Qty: 1.00 **Required Qty:** 1.00

Item	Type						
CR3212-4-04 Cherry Rivet	Purchased	No	180	Each	555.0000	52	52

Location		Loc Qty	Loc Code
ST311		555	
	116471	78	
	117816	477	

Item	Type						
D2654-3 Web	Manufactured	No	180	Each	4.0000	1	1

Location		Loc Qty	Loc Code
LG		4	
	64876	4	

Item	Type						
D2649 Cross Bolt Spacer	Manufactured	No	200	Each	46.0000	20	20

Location		Loc Qty	Loc Code
LG		34	
	68224	2	
	71355	2	
	72704	30	
LG001		12	
	65317	1	
	68507	11	

Item	Type						
D3286-3 Spacer	Manufactured	No	200	Each	27.0000	2	2

Location		Loc Qty	Loc Code
LG002		27	
	64564	27	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, August 26, 2011 6:49:03 AM

Work Order ID: 73137

Parent Item: D206-642-251

Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011 **Required Date:** 9/9/2011

Start Qty: 1.00 **Required Qty:** 1.00

Item	Type							
CCR264SS3-3 Cherry Rivet	Purchased	No	210	Each	459.0000	2	2	DP 11-12-6

Location		Loc Qty	Loc Code	
FP-B		2		
	113973	2		
ST311	119017	457		2
	117086	31		
	117849	426		

Item	Type							
CR3212-4-03 Cherry Rivet	Purchased	No	210	Each	1,158.000	2	2	DP 11-12-6

Location		Loc Qty	Loc Code	
FP-B		2		
	110139	2		
ST311		1156		
	114859	1156		2

Item	Type							
D2680-041 Nut Plate	Manufactured	No	210	Each	19.0000	1	1	DP 11-12-6

Location		Loc Qty	Loc Code	
ST020	73854	19		1
	55366	17		
	70088	2		

Item	Type							
D3805-043 Wearplate Assembly Fwd, High Gear	Manufactured	No	270	Each	0.0000	1	1	B77429 (x1) [illegible] 11/12/11
D3805-047 Wearplate Assembly Aft, High Gear	Manufactured	No	270	Each	0.0000	1	1	B77430 (x1) [illegible] 11/12/11

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Picklist Print

Friday, August 26, 2011 6:49:03 AM

Work Order ID: 73137

Parent Item: D206-642-251

Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011 **Required Date:** 9/9/2011

Start Qty: 1.00 **Required Qty:** 1.00

Item	Alt	Type			Unit		Qty	Picked	Notes
AN3-37A Bolt		Purchased	No	270	Each	281.0000	7	7	M119086 (x7) [initials] 11/12/14
AN960C10L washer	NAS1149C0332R	Purchased	No	270	Each	0.0000	7	7	M119736 (x7) [initials] 11/12/14
MS21042L3 Nut		Purchased	No	270	Each	1,783.000	7	7	M119075 (x7) [initials] 11/12/14
D3873-1 Bushing		Manufactured	No	270	Each	201.0000	14	14	1373832 (x14) [initials] 11/12/14

AN3-37A:

Location		Loc Qty	Loc Code
ST353		231	
	111668	131	
	118628	100	
ST354		50	
	117619	50	

MS21042L3:

Location		Loc Qty	Loc Code
ST300		1783	
	117441	150	
	117601	400	
	117885	233	
	118451	1000	

D3873-1:

Location		Loc Qty	Loc Code
ST084		36	
	68247	36	
ST088		165	
	64760	1	
	70690	63	
	71837	101	

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

NCR:	WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, August 26, 2011 6:49:04 AM

Work Order ID: 73137

Parent Item: D206-642-251

Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011 **Required Date:** 9/9/2011

Start Qty: 1.00 **Required Qty:** 1.00

Item	Alt	Type							
AN960JD10L Washer	NAS1149D0332J	Purchased	No	270	Each	0.0000	2	2	M118389 (x2)
MS27039-1-08 Screw		Purchased	No	270	Each	902.0000	2	2	M118910 (x2)

Location		Loc Qty	Loc Code
ST291		902	
	115108	202	
	117423	300	
	118378	400	

Item	Type							
D2651-1 Plug	Manufactured	No	270	Each	289.0000	8	8	137382 7 (x8)

Location		Loc Qty	Loc Code
fpa		109	
	69018	109	
FP-A		180	
	57869	1	
	66445	10	
	67760	36	
	70691	100	
	70839	2	
	71037	31	

Item	Type							
D2651-3 O-Ring	Manufactured	No	270	Each	294.0000	8	8	1373828 (x8)

Location		Loc Qty	Loc Code
FP-A		294	
	61962	12	
	66956	282	

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector

NOTE: Date & initial all entries

Picklist Print

Friday, August 26, 2011 6:49:04 AM

Work Order ID: 73137

Parent Item: D206-642-251

Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011 **Required Date:** 9/9/2011

Start Qty: 1.00 **Required Qty:** 1.00

Item	Type		Cost	Unit	Qty			
MS27039-4-06 Screw	Purchased	No	270	Each	37.0000	1	1	M119075 (x1) JM 11/12/14

Location		Loc Qty	Loc Code
FP-A		8	
	115460	8	
ST292		29	
	115460	29	

Item	Type		Cost	Unit	Qty			
AN960JD416 NAS1149D0463J * Washer	Purchased	No	270	Each	0.0000	1	1	M118384 (x1) JM 11/12/14
D2646 Aft Cap	Manufactured	No	280	Each	93.0000	1	1	B73825 (x1) JM 11/12/14

Location		Loc Qty	Loc Code
FP004		46	
	68280	46	
FP006		5	
	62678	5	
FP-4		38	
	70945	1	
	71070	37	
fp5		4	
	71038	4	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ________________ PAR #: _______ Fault Category: ________________ NCR: Yes No DQA: _____ Date: _________

Resolution: ________________ Disposition: ________________ QA: N/C Closed: _________ Date: _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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ITEM	Qty -041	Qty -043	Part Number	Description
1	X		D3804-041	**SKIDTUBE ASSEMBLY, 206 A/B LOW**
2		X	D3804-043	**SKIDTUBE ASSEMBLY, 206 A/B HIGH**
5	1	1	D2600-1-160	EXTRUSION
6	1	1	D2646	AFT CAP
7	1	1	D2647	CAP
8	19	20	D2649	CROSS BOLT SPACER
9	6	8	D2651-1	PLUG
10	6	8	D2651-3	O-RING
11		1	D2654-3	WEB
12	1		D2654-1	WEB
13	1	1	D2680-041	NUT PLATE
14	2	2	D3286-1	DOUBLER
15	2	2	D3286-3	STUD
21	2	2	AN960JD10L	WASHER
22	1	1	AN960JD416	WASHER
23	2	2	CCR264SS3-3	RIVET
24	2	2	CR3212-4-03	RIVET
25	52	52	CR3212-4-04	RIVET
26	2	2	MS27039-1-08	SCREW
27	1	1	MS27039-4-06	SCREW

NOTES

1) MATERIAL: N/A
2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
   -POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
3) BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
7) IDENTIFICATION: NONE
8) WEIGHT: 12.5 lb
9) WELD PER DART QSI 004
10) BENDING: DAMAGE TOLERANCE ON FWD BEND:
    THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
11) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
12) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)

RELEASED 09.03.03 per ECN 09-538

#73137

A	NEW ISSUE	MB	08.07.07
REV.	DESCRIPTION	BY	DATE

DESIGN		**DART AEROSPACE USA, INC** PORT HADLOCK, WA
DRAWN		
CHECKED		DRAWING NO. REV. A
MFG. APPR.		D3804 SHEET 1 OF 5
APPROVED		TITLE SCALE
DE APPR.		SKIDTUBE ASSEMBLY, 206A/B NTS
DATE	08.07.07	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ PAR #: ______ Fault Category: ____________ NCR: Yes No DQA: _____ Date: ________

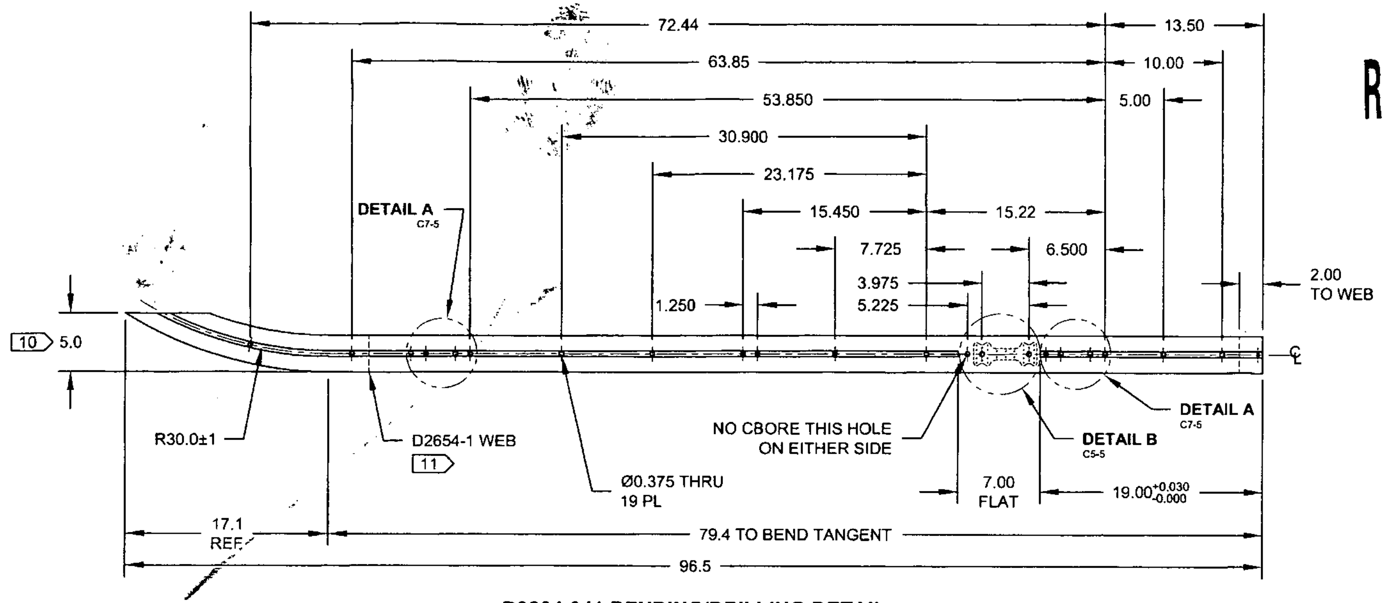
Resolution: ____________ Disposition: ____________ QA: N/C Closed: ________ Date: ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

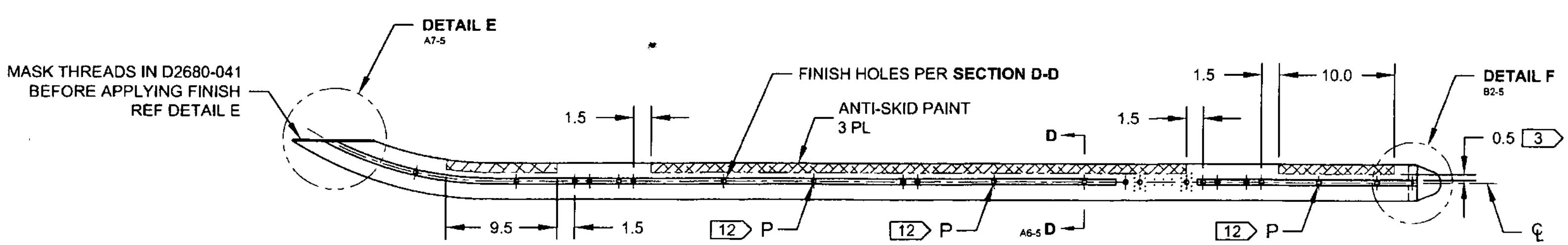
NOTE: Date & initial all entries

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RELEASED 09.03.03



D3804-041 BENDING/DRILLING DETAIL



D3804-041 ASSEMBLY/FINISHING DETAIL

#73137

DESIGN		DART AEROSPACE USA, INC PORT HADLOCK, WA
DRAWN		DRAWING NO. D3804 — REV. A — SHEET 2 OF 5
CHECKED		
MFG. APPR.		TITLE SKIDTUBE ASSEMBLY, 206A/B — SCALE NTS
APPROVED		
DE APPR.		
DATE	08.07.07	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

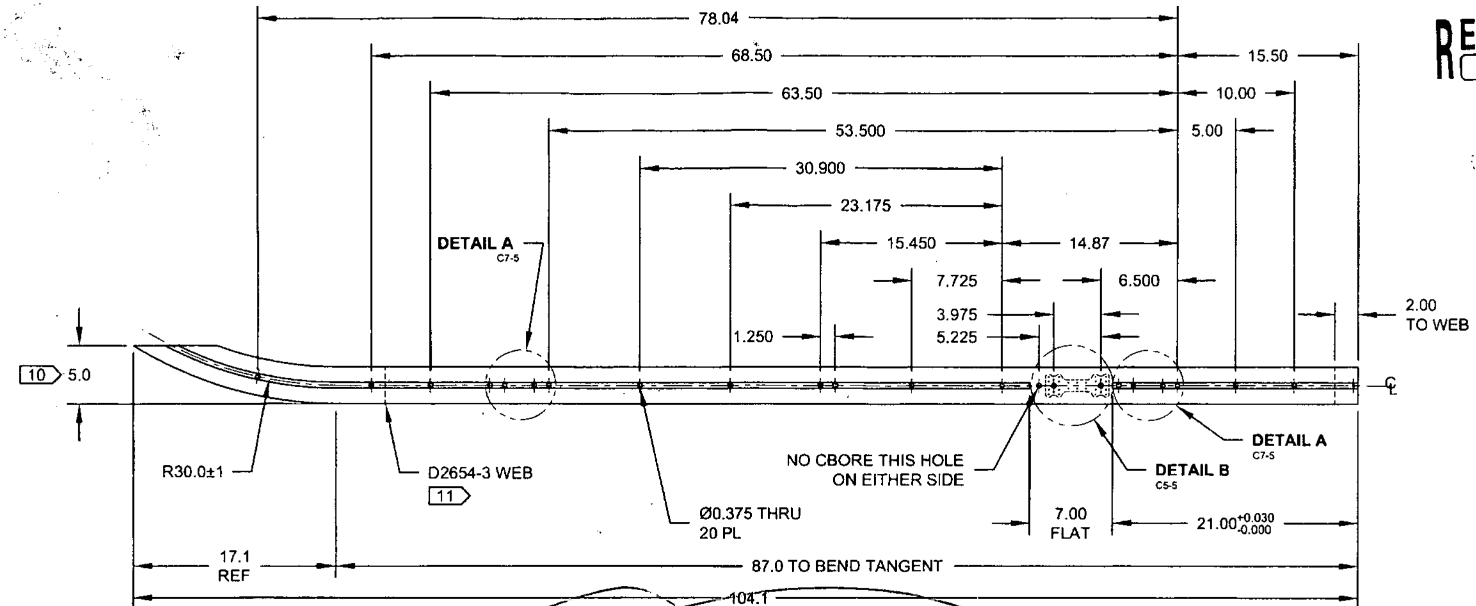
Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

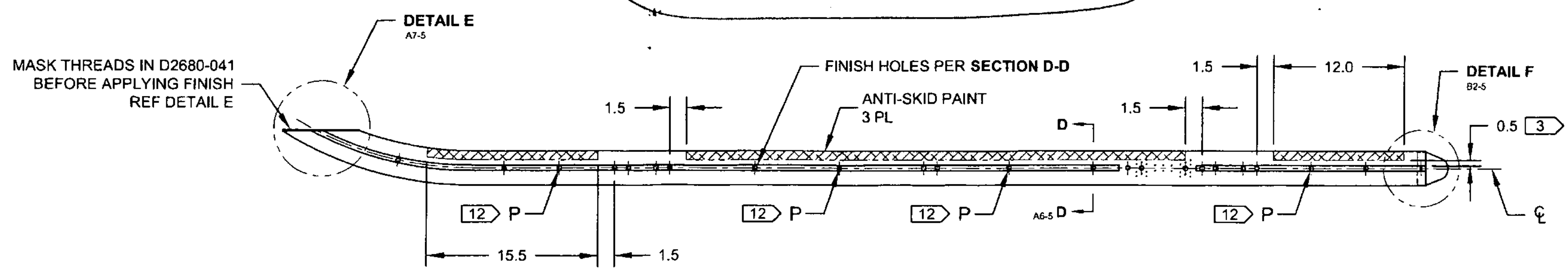
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

RELEASED 09.03.07



D3804-043 BENDING/DRILLING DETAIL



D3804-043 ASSEMBLY/FINISHING DETAIL

#73137

DESIGN		DART AEROSPACE USA, INC PORT HADLOCK, WA
DRAWN		
CHECKED		DRAWING NO. D3804 REV A SHEET 3 OF 5
MFG. APPR.		
APPROVED		TITLE SKIDTUBE ASSEMBLY, 206A/B SCALE NTS
DE APPR.		
DATE	08.07.07	

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

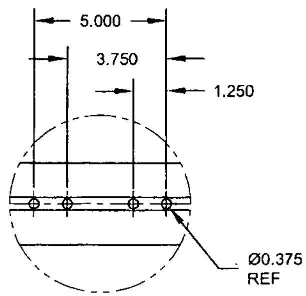
Part No: ________ **PAR #:** ____ **Fault Category:** ________ **NCR:** Yes No **DQA:** ____ **Date:** ______

Resolution: ________ **Disposition:** ________ **QA: N/C Closed:** ______ **Date:** ______

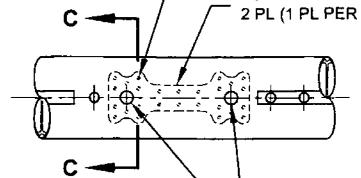
NCR:	WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

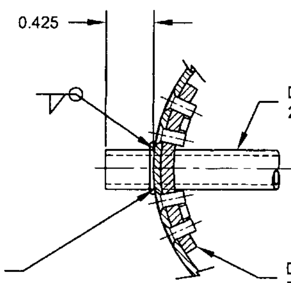
RELEASED 09.03.07



DETAIL A D6-2 C2-2 D6-3 C2-3
SCALE NONE

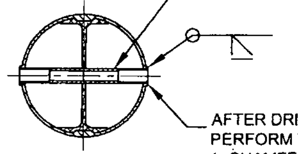


DETAIL B C3-2 C3-3
SCALE NONE



TO INSTALL D3286-1/-3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH OUTSIDE SURFACE OF ROUND TUBE
2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
3. ENLARGE HOLES IN D3286-1 TO Ø0.500
4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.03 X 45°
5. RIVET D3286-1 TO TUBE
6. INSERT D3286-3 SPACER
7. WELD IN PLACE AND GRIND FLUSH

SECTION C-C C6-4
PARTIAL SECTION
SCALE NONE



AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.03 X 45°
2. INSERT D2649 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. CBORE TO Ø0.313 X 0.75 DP (EXCEPT WHERE INDICATED)

#7313

SECTION D-D A4-2 A4-3
FOR Ø0.375 HOLES ONLY
SCALE NONE

DESIGN	[illegible]	DART AEROSPACE USA, INC PORT HADLOCK, WA
DRAWN	[illegible]	
CHECKED	[illegible]	DRAWING NO. REV. A
MFG. APPR.	[illegible]	D3804 SHEET 4 OF 5
APPROVED	[illegible]	TITLE SCALE
DE APPR.	[illegible]	SKIDTUBE ASSEMBLY, 206A/B NTS
DATE	08.07.07	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ PAR #: ______ Fault Category: ____________ NCR: Yes No DQA: _____ Date: ________

Resolution: ____________ Disposition: ____________ QA: N/C Closed: ________ Date: ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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NO. 274

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 75391
Part number: D206 642 151
Description: 206 skid tube
Welding Process: Tig[X] Mig[ ]
Base materiel: Aluminum
Current: AC[X] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual:	pass[X]	fail[ ]
Penetration:	pass[X]	fail[ ]

UNACCEPTABLE

Cracks:	pass[X]	fail[ ]
Undercut:	pass[X]	fail[ ]
Pin holes:	pass[X]	fail[ ]
Overlap (cold lap)	pass[X]	fail[ ]
Porosity (surface):	pass[X]	fail[ ]
Coloration:	pass[X]	fail[ ]

Qualifier [signature] **Date of Test Coupon** 11 · 11 · 18

Welder [signature] **Date of Test Coupon** [illegible]

The above named individual is qualified in accordance with AWS D17.1.2001 to weld